

IN THE CLAIMS:

All claims currently pending and under consideration in the referenced application are shown in the listing of claims and will replace all prior versions and listings of claims in the application. Applicants propose to amend claims 1, 3-8, 11, 13, 16 and 22 herein. Claims 9, 10, 12, 14, 15 and 17-21 are cancelled. No new matter has been added. Please enter these claims as amended.

Listing of the Claims:

1. (Currently amended) A recombinant mammalian receptor comprising:
an extracellular ligand-binding domain of a receptor; and
a cytoplasmic domain comprising a domain derived from a cytoplasmic domain of a receptor, at least one activation site and a heterologous bait polypeptide heterologous to the domain derived from a cytoplasmic domain of a receptor;
wherein the activation of said recombinant mammalian receptor is inhibited by binding of a fusion protein to said heterologous bait polypeptide, said fusion protein comprising a prey polypeptide and at least one of an inhibitor of the activation of said recombinant mammalian receptor and a recruitment site for the inhibitor of the activation of said recombinant mammalian receptor.
2. (Cancelled)
3. (Currently amended) The recombinant mammalian receptor of claim 1, wherein said recombinant mammalian receptor is activated by the addition of a compound that disrupts an interaction between said heterologous bait polypeptide and said prey polypeptide.
4. (Currently amended) The recombinant mammalian receptor of claim 1, wherein said recombinant mammalian receptor is a homomultimerizing receptor.
5. (Currently amended) The recombinant mammalian receptor of claim 1, wherein

said recombinant mamallian receptor is a heteromultimerizing receptor.

6. (Currently amended) The recombinant mammalian receptor of claim 1, wherein the binding of said prey polypeptide depends upon a modification state of said heterologous bait polypeptide.

7. (Currently amended) The recombinant mammalian receptor of claim 6 wherein the modification state comprises presence or absence of phosphorylation, acetylation, acylation, methylation, ubiquitination or glycosylation.

8. (Currently amended) The recombinant mammalian receptor of claim 6, wherein a change of the modification state is dependent upon binding of a ligand to the extracellular ligand-binding domain.

9-10. (Cancelled)

11. (Currently amended) A vector encoding the recombinant mammalian receptor of claim 1.

12. (Cancelled)

13. (Currently amended) A ~~eukaryotic~~ mammalian cell comprising the recombinant mammalian receptor of claim 1.

14-15. (Cancelled)

16. (Currently amended) A cloning vector encoding a recombinant mammalian receptor, comprising:

a nucleotide sequence encoding a cytoplasmic domain of a receptor, wherein the nucleotide sequence comprises at least one restriction site configured to allow an in frame fusion

of a nucleic acid sequence encoding a bait polypeptide, wherein insertion of the nucleic acid sequence encoding said bait polypeptide results in the vector of claim 11.

17-21. (Cancelled)

22. (Currently amended) A recombinant mammalian transmembrane receptor, comprising:

a cytoplasmic domain comprising an intracellular domain, a bait polypeptide and an activation site, wherein an interaction of a prey polypeptide with the bait polypeptide prevents the activation site from activating the recombinant mammalian transmembrane receptor; and

an extracellular domain having a ligand binding domain, wherein binding of a ligand to the ligand binding domain activates the recombinant mammalian transmembrane receptor upon disruption of the interaction between the prey polypeptide and the bait polypeptide;

wherein the bait polypeptide is heterologous to the intracellular domain.

23. (Cancelled)